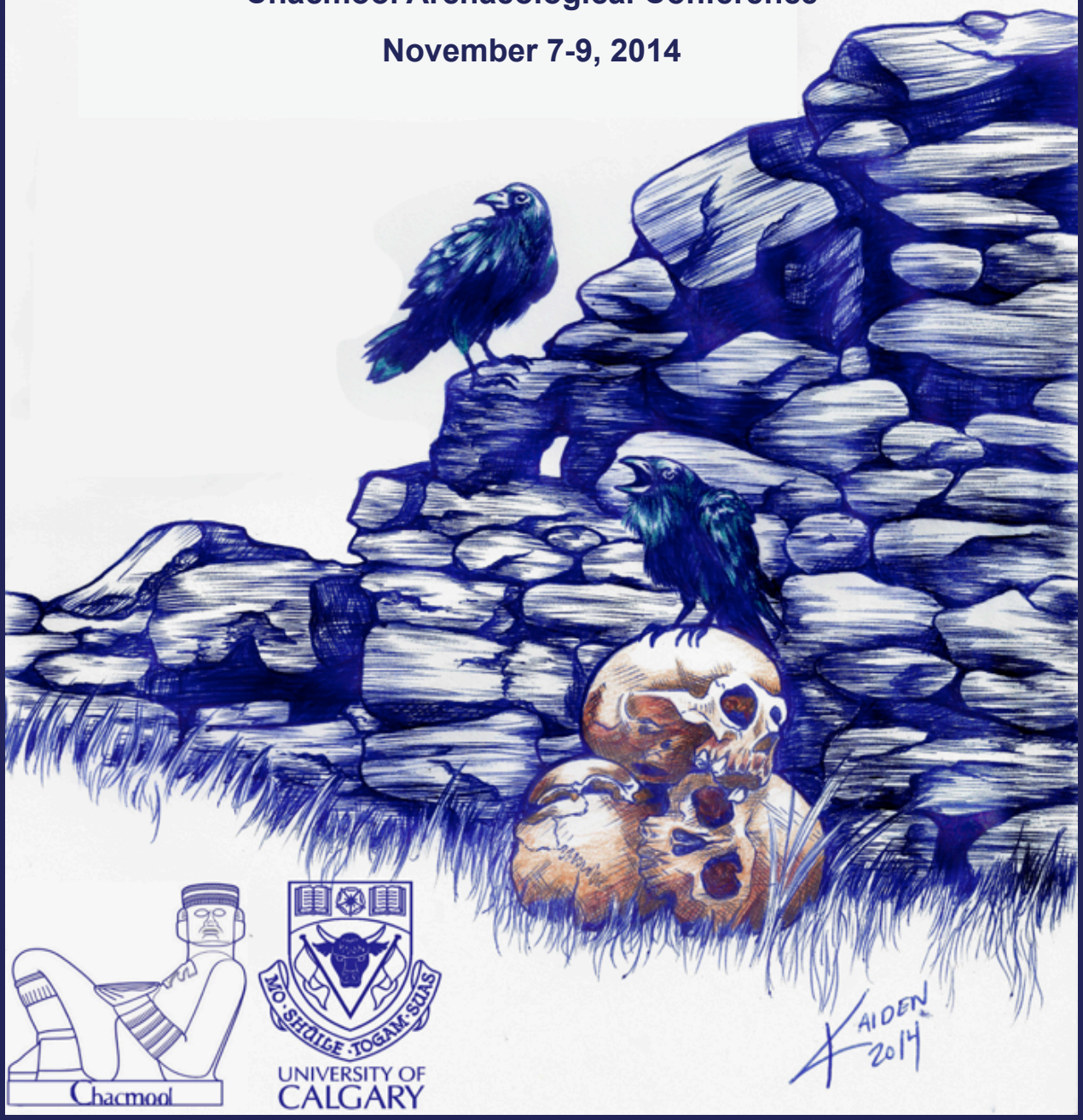
BREAKING BARRIERS

Proceedings of the 47th Annual

Chacmool Archaeological Conference

November 7-9, 2014



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edited by

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Investigating Archaeologists' Engagement With Feminist Theory Using Textual Macroanalysis: 25 Years after Chacmool 1989

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Abstract

Whether feminist theory should inform archaeological research on gender has been the subject of some debate. Though pioneering gender studies advocated for feminist-inspired approaches, archaeologists as a whole appear to have examined gender with little influence from feminist thought. Abstracts from the 1989 Chacmool Conference on "The Archaeology of Gender" have been viewed as key evidence in support of this position, as few contained references to feminist theory or concepts. In this paper, we use textual macroanalysis to explore whether the highly influential findings from the 1989 Chacmool Conference represent the work of archaeologists at a broader scale. Tracking diachronic changes in the relative frequencies of and correlations between keywords in over 2,000 scholarly publications, we find that while explicit contextualization within feminist thought is often missing, feminism has exerted a substantial albeit more subtle influence on gender research. Our results complicate dominant narratives about gender research and highlight the potential of textual macroanalysis for developing quantitative accounts of archaeology's history.

The rapid rise of gender research stands as one of the most significant recent developments in archaeology. In North America, this work can be traced to Conkey and Spector (1984), who first systematically exposed the androcentric, ethnocentric, and presentist biases that pervade archaeologists' conceptions of gender. They called for a more critical archaeology of gender, one predicated on the notion that gender relations and identities are integral components of human societies and thus worthy of robust theoretical and methodological approaches. In the intervening three decades, archaeologists have answered their call. The now substantial corpus on gender and archaeology (see Conkey and Gero 1997; Engelstad 2007) highlights the viability and insight of this work for augmenting our understanding of gender in the past and combating sexism, classicism, and homophobia that continue to structure the composition of the discipline.

Theoretically, gender research's primary debt lies with feminism. The emergence of gender research in archaeology followed directly from feminist critiques making headway in other disciplines, especially cultural anthropology. Pioneering studies argued that the objectivist frameworks guiding archaeological research were not only politically situated, they served to minimize women's presence in the past and contributions to the discipline (Conkey and Spector 1984; Wylie 1991). A key insight of these works is that the study of gender, as a component of a broader feminist research program, has the potential to "foster a conceptually richer, empirically more robust, and more broadly accountable responsible archaeology" (Wylie 2007:215).

While there is general consensus that feminist theory was critical to the initial fluorescence of gender research, some archaeologists have expressed concern about the long-term impact of this relationship. This position is articulated by Sørensen (2000), who contends feminism is simply one of many minority "voices" and therefore unlikely to attract discipline-wide support. In her view, feminism is essentially a political stance whose adherents are unable to escape their own biases or "provide a starting point for developing models of scientific rationality" (2000:36). Moore (1997:251) similarly claims that feminism will prevent gender research from entering archaeology's "mainstream" and precludes the discovery of "any objective historical truth which is not the vehicle of some particular interest group". Apparent in these positions is a reticence to embrace feminist thought lest gender research be marginalized as a politicized niche devoid of significant archaeological import.

Despite compelling epistemological positions outlined by Wylie (1991, 2007) that resolve feminism's perceived association with relativism, there is evidence to suggest archaeologists as a whole support disentangling gender research from its feminist roots. This was clear at one of the first major archaeology conferences devoted to gender: the 1989 Chacmool Conference. The conference attracted considerable interest, drawing more paper submissions and a larger attendance than any previous Chacmool Conference. The intellectual merit of the conference was similarly high. Papers tackled a range of foundational theoretical and methodological challenges faced by a nascent archaeology of gender. Given that gender research was still in its infancy—only five years had passed since the publication of Conkey and Spector (1984)—the success of the conference is notable. It suggests an interest in gender already existed within the discipline and had finally found an outlet (Wylie 1997). Hanen and Kelley (1992), seeking to identify emerging trends in this work, analyzed all 103 abstracts from the conference. To their surprise, relatively few conference participants made explicit mentions of feminist theory. Less than 20% contained "feminism" or "feminist" and few referenced or cited feminist critiques.

These patterns have proven resilient. At the 2004 "Que(e)rying Archaeology" Chacmool Conference, interaction between gender research and third-wave feminist concepts such as identity and sexuality seemed likely. Yet the 141 abstracts exhibited few differences from those submitted to the 1989 conference (Geller 2009). Archaeologists continued to explore sexual/gendered divisions of labor, conflate sex and gender, and rely on essentialized gender dichotomies, all of which have been problematized by feminist theorists. Again, few abstracts—this time, only 4%—included "feminism" or "feminist". As at the 1989 conference, gender attracted considerable interest, but it appeared as "just another variable…added to an unreflexive, somewhat positivist approach" (Conkey 2003:876), that is, a non-feminist one.

While it is tempting to regard these findings as specific to the Chacmool Conference, analysis of non-Chacmool gender studies has returned similar results (Engelstad 2007). Consequently, the Chacmool findings have been interpreted as a reflection of a

discipline-wide pattern. Prominent review articles (Hays-Gilpin 2000; Wylie 2007) have forwarded the Chacmool abstracts as support for qualitative observations about the dearth of feminist theory in gender research. By identifying and summarizing research trends past and present, review articles create and reiterate historical narratives through which we understand the current state of archaeology. For gender research, the dominant narrative that has emerged describes sustained intellectual interest and insight but little engagement with feminist theory.

The above quantitative studies provide valuable insight about the nature of gender research in archaeology, but their relatively small sample size and focus on non-peer reviewed publications raise questions. How confident can we be that conference abstracts provide a representative sample of research discipline wide? Would analysis of publications in their entirety yield different results? Is it possible that feminist theory has played a greater, albeit more subtle, role in archaeologists' examinations of gender?

We argue that conceptions of archaeology's history based on qualitative assessments and limited quantitative studies do not necessarily reflect the work of archaeologists more broadly. Of course, crafting cogent historical narratives necessitates some level of homogenization and simplification and thus a typical review article or historical study cannot account for the full text of every relevant publication. Aided by computational methods, however, we can bring larger and more inclusive data sets to bear on questions of historical significance. In this paper, we present the results of a textual macroanalysis of over 2,000 articles published in *American Antiquity* over the past forty years. We evaluate the role of feminist theory in gender research by tracking changes in the relative frequencies of and correlations between keywords through time and comparing these findings with select close readings of texts from the corpus. Our results suggest gender research exhibits more engagement with feminism than has been previously surmised.

Textual Macroanalysis and its Application in Archaeology

The conventional way we engage with scholarly literature is focused and time-intensive. We read words sequentially and mentally thread these words together to create meaning. This "close reading" approach is highly effective for parsing individual documents and small collections of texts, but when investigating corpora that contain hundreds or even thousands of documents, the time required for diligent close reading is beyond what we can muster in any realistic context. This problem has been tackled by scholars in the digital humanities, who argue computational methods offer a new way forward for understanding literary history. By shifting the level of analysis from a narrow selection of celebrated works to entire genres and literary traditions, scholars have quantified different writing styles, explored the relationship between historical events and literary trends, and questioned whether differences exist between canonical works and those by historically marginalized authors (Jockers 2013). This approach to

analyzing large volumes of text is often referred to as "distant reading" or textual macroanalysis.

Textual macroanalysis can be applied to archaeology in a number of ways. Similar to studies in the digital humanities, we can investigate shifts in archaeologists' writing styles through time, track the rise and fall of particular theoretical perspectives, and quantify inter-journal differences related to geographic foci and author demographics. In addition, we believe textual macroanalysis may have potential to reveal new insights about archaeology's history. Disciplinary histories rely on subjective close readings of existing research and generally reflect the work of select scholars and theorists (c.f. Trigger 2006). While this approach has produced numerous insightful accounts of major trends and developments within the discipline, it remains to be seen whether histories of ostensibly influential individuals reflect the research of practitioners across the discipline. Using textual macroanalysis, we can investigate discipline-wide research patterns and construct accounts of archaeology's history that complement and perhaps complicate prevailing historical narratives.

As a demonstration of this approach, we assessed the role of feminist theory in gender research over the past forty years. We first wrote software in the R programming language (R Core Team 2014) that would allow us to identify and visualize patterns within a large corpus (Marwick 2014). We then turned to JSTOR's Data for Research, an online repository of scholarly publications built for distant reading-style research. We downloaded 2,196 full text articles published in *American Antiquity* between 1970 and 2007. Our results can be reproduced and extended using the R code archived at: http://dx.doi.org/10.6084/m9.figshare.1284283.

With this corpus, we sought to identify the role feminism has played in gender research. Our study has two components. First, we conducted frequency analysis to investigate diachronic changes in the relative frequency of "gender" and "feminism/feminist". Second, using correlation analysis we tracked the correlation between "gender" and key feminist concepts through time. Inspired by the results from previous Chacmool Conferences (Geller 2009; Hanen and Kelley 1992), we predicted that 1) "gender" would appear in more articles and with a consistently higher relative frequency than "feminism/feminist" through time and 2) words associated with feminist concepts would not be highly correlated with "gender" through time.

Results

Figure 1 illustrates the relative frequencies of "gender" and "feminism/feminist" in our corpus from 1970 to 2007. Each data point corresponds to an article in which these words appear and a higher relative frequency indicates these words occurred more often compared to the total number of words in each article. "Gender" and "feminism/feminist" have broadly comparative relative frequencies, though with differing

FIGURE 1. Relative frequencies of "gender" and "feminism/feminist" in our corpus since 1970.

degrees of variation. "Feminism/feminist" exhibits a roughly bimodal distribution, peaking in the early 1990s and early 2000s and exceeding the relative frequency of "gender" during these periods. From the late 1970s onwards, "gender" appears to have attracted more consistent interest, though its initial fluorescence was followed by declining relative frequencies in the late 1990s.

Figure 1 speaks to the rapid emergence of gender research in archaeology. In less than a decade after the publication of Conkey and Spector (1984), gender went from a rarely discussed topic to the subject of dozens of publications. Feminism did not experience a similar trajectory. "Gender" appears in over three times as many articles (n = 195) as does "feminism/feminist" (n = 58) and the total number of mentions for "gender" (n = 1491) are over five times that of "feminism/feminist" (n = 265). Disparities in total word count could be explained by the incorporation of feminism as a theoretical perspective but not necessarily the primary research focus. That is, authors may reference feminist critiques in the introduction and background sections of their work but spend the bulk of the paper exploring gender at their study site. However, if this were true, we would expect "gender" and "feminism/feminist" to appear in comparable numbers of articles. This is not the case. "Gender" is mentioned more often and in more articles than "feminism/feminist", suggesting that feminist theory plays a minimal, or at least not explicit, role in a significant proportion of this research.

How then do we make sense of the peaks in the relative frequency of "feminism/feminist"? Though we must proceed with caution given the relatively small numbers of articles containing these words, Figure 1 suggests "feminism/feminist", while present in fewer articles, attract considerable discussion when they do appear. These peaks may therefore represent periods of theoretical articulation, an interpretation supported by their temporal distribution. Many pioneering studies from the mid- to late 1980s explicitly linked feminism and gender research (e.g. Wylie 1991). These works may have inspired engagement with feminism across the discipline, paving the way for feminist-inspired journal publications. Similarly, more extensive references to "feminism/feminist" in the mid-2000s may reflect reengagement with feminist theory. Within gender research, the turn of the twenty-first century stimulated reflection on existing

approaches and recommendations for future work (Conkey and Gero 1997; Hays-Gilpin 2000). These publications emphasized gender research's roots in feminist theory and advocated for more explicitly feminist approaches. If Figure 1 is any indication, they may have successfully reignited archaeologists' engagement with this work, at least for a few years.

Our results only partially support our first prediction. As argued by Hanen and Kelley (1992), feminism is missing from many gender studies, but it is not completely absent. In our corpus, feminism is mentioned in 30% of publications that also mention gender, more than the 1989 or 2004 Chacmool Conference abstracts. This suggests that previous quantitative studies, and the dominant narrative historical narratives they support, may have underestimated archaeologists' interest in feminist thought.

Word frequency analysis highlights the potential of distant reading for extracting new insights about the history of archaeology. And when used in tandem with close reading, comprehensive and nuanced interpretations of archaeological literature are possible. To that end, we paired our frequency analysis data with close readings of randomly selected articles within our corpus to examine the use of "feminism/feminist" in context. In some instances, especially in articles with low relative frequencies, these words appear as passing references to feminist concepts or publications. In many others, we found authors drawing on feminist critiques of ethnoarchaeological interpretations: "feminist scholars point to the androcentric biases of the ethnographic genre, and archaeologists who employ these studies…commonly project these biases into the past" (Stahl 1993:250) and the relevance of feminism to broader theoretical developments: "while postprocessualism has opened up a space for an archaeology of gender, postprocessualism may not be sustainable as a critique or approach without a feminist archaeology" (Little 1994:540-541). In other words, we found archaeologists substantially engaging with feminist literature in ways that support our interpretations of the frequency data.

Diachronic changes in word frequencies, as depicted in Figure 1, offer a first-order approximation of archaeologists' engagement with feminist theory. But they may misrepresent feminism's role in this corpus. We assumed that increases in the relative frequencies of "feminism/feminist" correlate with more extensive discussion of these words. Such a simple assumption is likely to be vulnerable to numerous flaws and exceptions. For example, publications that employ concepts forwarded by feminist theorists but contain few mentions of "feminism/feminist" will be interpreted as minimally engaged with feminist theory. Alternatively, articles critical of applications of feminism in archaeology may exhibit high relative frequencies of these words but again will be interpreted incorrectly. Some such incongruities are expected when doing distant reading, but whether we can dismiss them as merely statistical "noise" remains to be seen.

Correlation analyses provide one possible approach to mitigating these problems. By tracking the correlation between the relative frequencies "gender" and

sets of words associated with feminism, we can assess whether feminism has played a less obvious and more conceptual role in gender research. With this analysis, we can assess at a larger scale Geller's (2009) observation that gender research has proceeded out of step with developments in feminist thought. We selected two sets of keywords for this analysis. First, we sought to evaluate the relationship between gender research and sexual/gendered divisions of labor. We chose the following keywords: "labor", "division", "role", "hunt", "hunter", "gather", and "gatherer". Second, we were interested in the impact of third-wave feminist concepts, especially intersectional approaches, on gender research; we chose the following keywords: "intersectional", "intersectionality", "identity", "race", "queer", and "sexuality". Collectively, we believe these keyword groups serve as proxies for studies that rely on homogenous and stereotypical conceptions of "men" and "women" as categories and those that recognize the fluidity and complexity of lived experiences and identities, respectively. We expected the appearance of some or all of these words in articles with "gender" to offer insight about whether research has been influenced primarily by dated views of gender or more recent feminist positions.

Figure 2 illustrates the correlation between the relative frequency of "gender" and the first set of keywords in our corpus through time. Since the mid-1980s, sexual/gendered divisions of labor have attracted considerable scholarly interest. The strength of the correlation, indicated by the distance between each point and the center line, increased in the early 1990s and has risen rapidly in recent years. The former may be explained by the fact that many early gender studies focused on "finding" women in the archaeological record and combatting "Man the Hunter" views of gender relations. The latter is more perplexing, especially given calls by feminist theorists to move away from studies predicated on monolithic gender roles and toward more nuanced and culturally-situated explorations of gender. Nevertheless, interest in sexual/gendered divisions of labor remains high, as was found at the 2004 Chacmool Conference (Geller 2009).

Close reading supports this interpretation. Within our corpus, uncritical examinations of gender roles played prominent roles in articles published in the 1990s: "men hunted, fished, and manufactured fishing paraphernalia, while women gathered, processed, and manufactured carrying and storage implements" (Jones 1996:245) and more

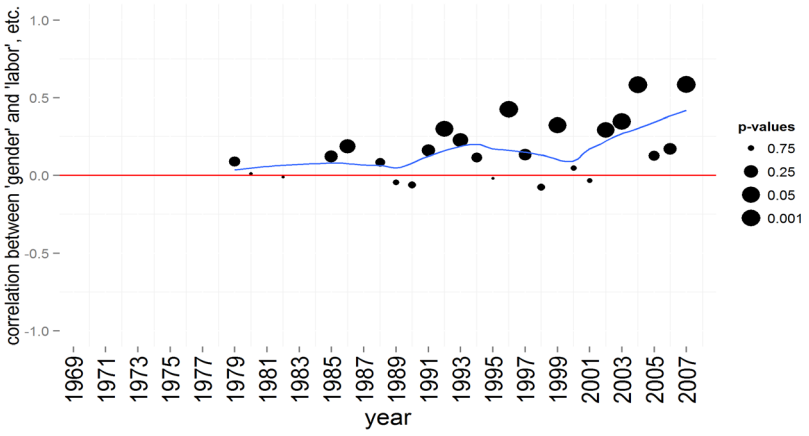

FIGURE 2. Correlation between the relative frequencies of "gender" and keywords associated with sexual/gendered divisions of labor in our corpus since 1970.

recently: "women shifted focus to grasses and other small seeded plants…. Men continued targeting large game" (Janetski et al. 2012:153). Whatever critiques have been levelled at this work, it is clear divisions of labor have been one of the primary foci of gender related research in archaeology.

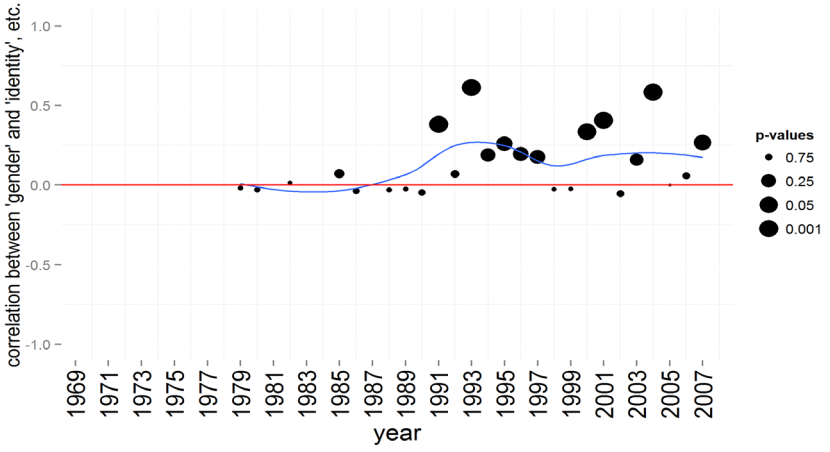

FIGURE 3. Correlation between the relative frequencies of "gender" and keywords associated with intersectional approaches in our corpus since 1970.

What about words related to intersectional approaches? Figure 3 illustrates the correlation between the relative frequency of "gender" and the second set of keywords in our corpus through time. The bimodal distribution resembles the relative frequency of "feminism/feminist". In one sense, this result is not surprising, as we would expect publications with more references to feminism to employ concepts taking hold within feminist thought. Yet higher relative frequencies do not in themselves suggest scholars have drawn on feminist concepts; correlation data as depicted in Figure 3 suggest these concepts have been tethered to archaeological examinations of gender. Overall, our second prediction, that words associated with key feminist concepts would not be highly correlated with "gender" through time, is only partially supported. Interest in sexual/gendered divisions of labor persists, as argued by Geller (2009), but engagement with intersectional approaches appears to have also occurred.

Turning again to the articles themselves, we can view these words in context. Authors have considered the ways in which gender articulates with other aspects of identity: "although gender conflict can be shown to exist throughout the world, the quality (arrangements and intensity), meaning, and struggles also can be shown to vary in different social formations" (Ensor 2000:18) and applied these insights to particular study sites: "the Old Baton Rouge Penitentiary was a place where race intersected with class and gender" (Nobles 2000:12).

CONCLUSION

The above results complicate the accepted history of gender research in archaeology. They imply archaeologists are committed to gender research and that their work, which while on the whole cannot be said to reflect extensive contextualization within feminist thought, has drawn on feminism to a greater degree than the 1989 and 2004 Chacmool Conference abstracts would indicate. If anything, our study suggests ar-

chaeologists cannot be uniformly categorized as engaged or not engaged with feminist thought; rather, at least two camps of gender researchers appear to exist in archaeology today: those that explore gender in the absence of feminist theory and those that do. Certainly, explicit references to feminist literature have been relatively minimal—though feminism is mentioned more discipline-wide than in abstracts from the 1989 and 2004 Chacmool Conferences—but nevertheless feminist theory and concepts have featured in a substantial portion of gender research.

That feminist theory has exerted a more extensive yet perhaps more subtle influence on gender research was on display at the 2014 Chacmool Conference. Papers presented at the "Gender and Identity" session covered a range of topics from women in Roman Britain to slave quarters in the Caribbean. Not a single presenter explicitly mentioned feminist theory, yet their studies were, intentionally or not, clearly informed by feminist thought. Most obvious were papers' exploration of identity, which consistently recognized the intersection of multiple axes of privilege and oppression including gender, race, age, and class. These concepts have a long intellectual history within feminist scholarship, and their inclusion in the "Gender and Identity" session encouraged thoughtful and compelling research. Though the 2014 Chacmool Conference was not explicitly focused on gender, it may have provided a fairly accurate snapshot on the state of gender research in archaeology today.

We do not yet fully understand the extent to which feminist theory has shaped gender research in archaeology. Certainly, because our data set reflects only publications from *American Antiquity*, our results likely say as much about the journal's history as they do about the history of gender research in archaeology. Nevertheless, we believe this study highlights the utility of textual macroanalysis in archaeology and will hopefully encourage similar work. In our view, "distant reading" has applicability beyond gender research and will prove useful for identifying conceptual, methodological, and linguistic shifts within the discipline. By shifting our perspective from individual works to large corpora of scholarly publications, textual macroanalysis can produce quantitative accounts of archaeology's history that more inclusively reflect the large number of archaeologists active in producing scholarly literature rather than a select group of celebrity theorists. As a tool for reassessing dominant historical narratives, textual macroanalysis holds great potential, as we hope this study has demonstrated.

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